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Bulletin of the Virginia Polytechnic Institute

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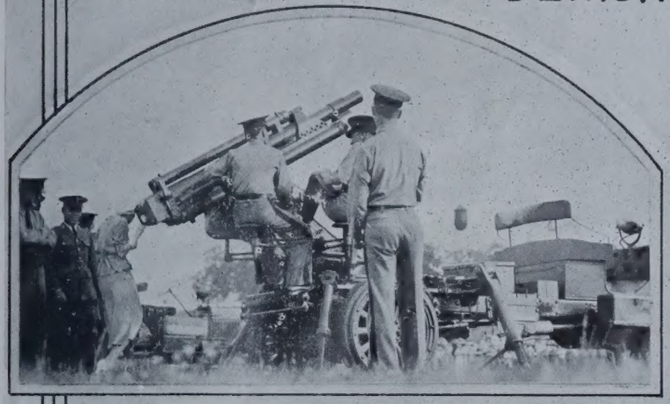
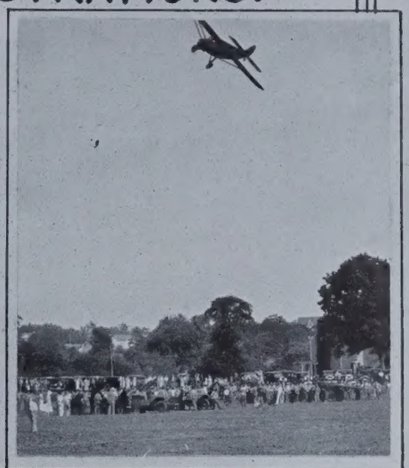
Tech Life

FINALS — WAR DEMONSTRATIONS.



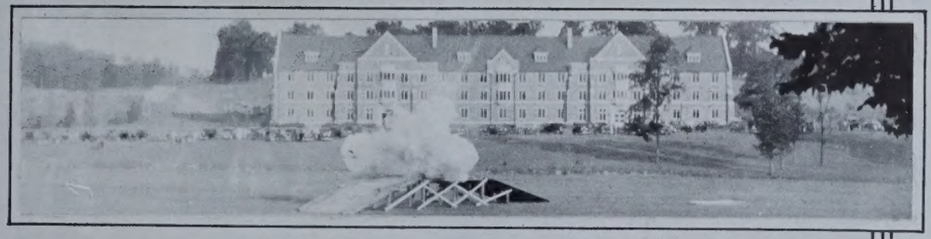
Waiting for a 'Plane



The Air "Attack"

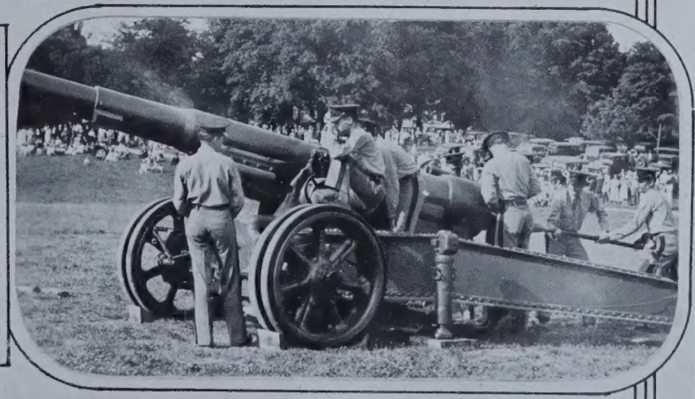
Engineers build a Bridge.

Test it—



then demolish it.

One Pounder Speaks



"Bulldog" one-fifty fivers

Military

One of the distinctive features of Virginia Tech is its military system. The students who take military are organized into a cadet regiment of three battalions, headquarters, band, and staff. Each battalion consists of students enrolled in a particular Reserve Officers' Training Corps unit. The cadet officers and non-commissioned officers are selected by the commandant with the approval of the president, from those cadets who best combine the qualities of high moral character, military bearing and proficiency, aptitude for military service, general good deportment, and high class standing.

A cadet's daily life is arranged so that his activities are carried out systematically, beginning with reveille, followed by inspection, assembly, breakfast, policing, drill formation, and classroom work. The uniform consists of a dark blue blouse, gray trousers, dark blue overcoat with red-lined cape, white cross-belts, and dark blue cap.

Instruction in the Reserve Officers' Training Corps is given in the following branches of the service: coast artillery, engineer, infantry. The basic course is given during the first two years of college work, and the advanced course during the last two years. The latter includes a summer camp of approximately six weeks duration, during the summer between the junior and senior years.

To teach the R.O.T.C. courses at Virginia Tech, the United States government has assigned eight army officers and five non-commissioned officers. Valuable military equipment which aids in the technical instruction has been supplied.

Military training at Virginia Tech is economical because students receive pay from the federal government for enrolling in the R.O.T.C. This pay during the four years amounts to about $280, most of which is received during the last two years. The six weeks R.O.T.C. camp held at the end of the third year is without expense to the student.

The corps of cadets at Virginia Tech is as old as the college, and its traditions and esprit are the backbone of the student life.

What Virginia Tech Offers

Virginia Tech is a large and complex organization which has been built to serve in many and varied capacities. As its legal title —The Virginia Agricultural and Mechanical College and Polytechnic Institute—implies, its special function is the serving of the farm and industrial interests of Virginia. To carry out this function adequately, it has divided its organization into three main divisions: resident instruction, which provides technical training for young men and women while preparing them for useful citizenship; experimentation and research, in which trained men endeavor to solve agricultural and industrial problems through study of various questions; and extension service, in which the work of the college and experiment stations is carried to the farm and shop for practical application. As students do not come into very close contact with the latter two divisions, little will be said about them in this bulletin, although many pages could be written in describing the important part they play in the economic life of the state and nation.

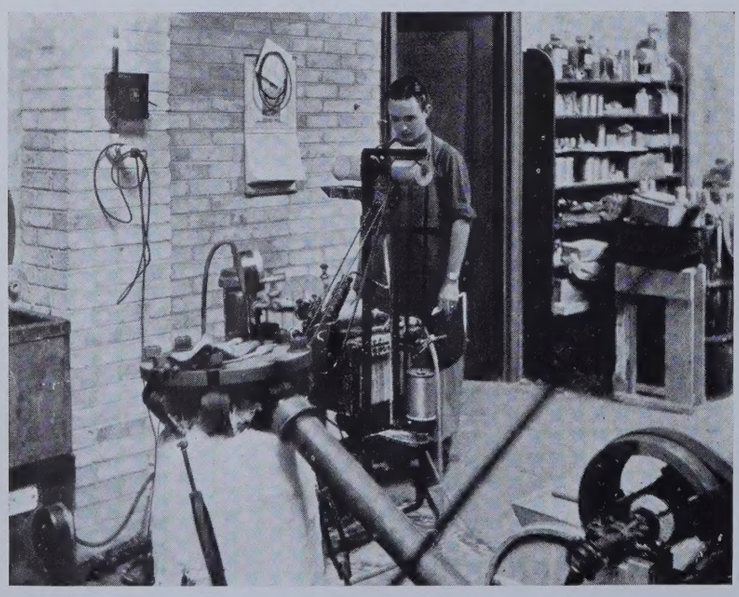
Resident instruction, likewise, is divided into three divisions or schools in which the various curricula and courses are administered. These are: The College; The School of Agriculture; and The School of Engineering.

In the College are the following curricula:

BUSINESS ADMINISTRATION—Designed to meet the demand for men and women with college training of a type which prepares for successful service in the broad field of business, commerce, and trade; banking and finance; advertising and selling; insurance and investment; transportation and manufacturing; accounting and auditing.

BIOLOGY—Designed primarily as a sound foundation for future work in botany, bacteriology, entomology, parasitology, plant pathology, zoology, and similar technical and research fields.

Davidson Hall (Chemistry, Physics, Geology, Metallurgy)



A Portion of the Rayon Laboratory

CHEMISTRY—Serves the needs of students who look forward to work in the different branches of chemistry: general, analytical, organic, physical, agricultural, pharmaceutical, and sanitary.

GENERAL SCIENCE—Provides a more liberal education than is possible in the specialized curricula, without excluding the basic training in the fundamental sciences necessary to an understanding of the complexities of modern life.

PRE-MEDICINE; PRE-PHARMACY; PRE-DENTISTRY; PRE-LAW—Two-year curricula arranged for students intending to study medicine, pharmacy, dentistry, or law.

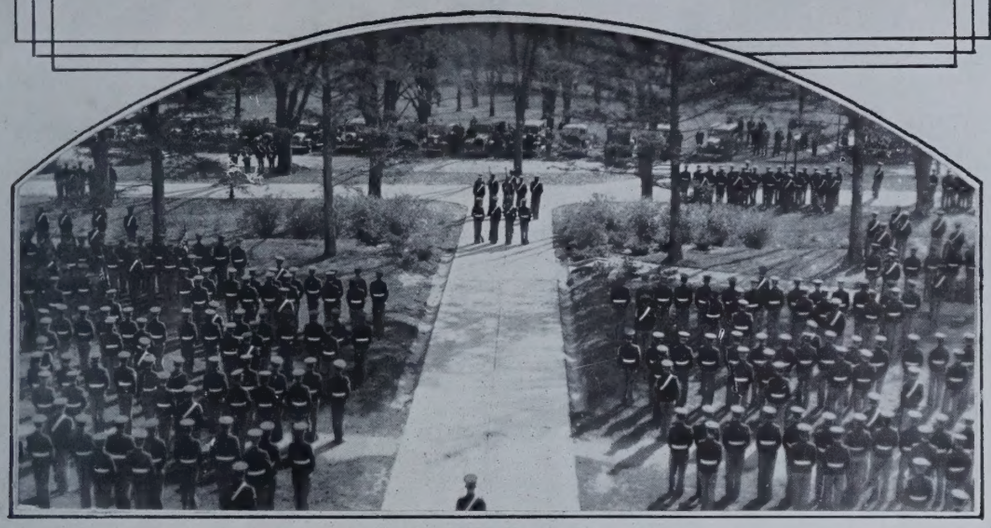
In the School of Agriculture are offered the following curricula:

AGRICULTURE, GENERAL—For those who desire a more general training than is possible in the specialized curricula.

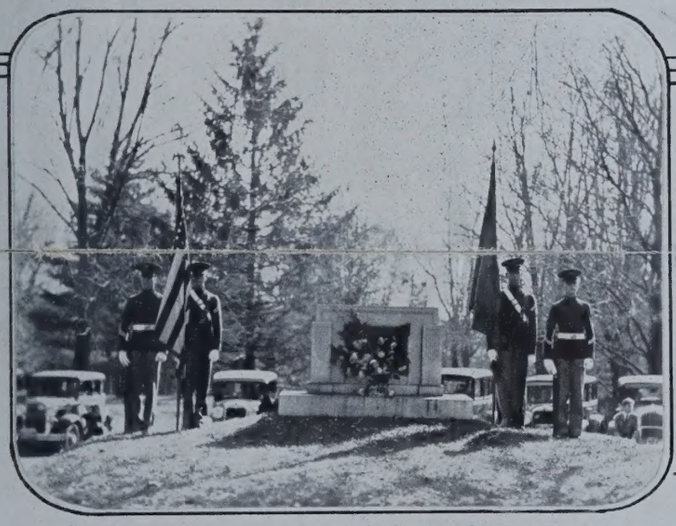
AGRICULTURAL ECONOMICS—Trains students for salaried positions and for the more profitable management of their own farms. Students are taught how to collect and analyze agricultural statistics, and how to make a business analysis of individual farms and of marketing organizations.

AGRICULTURAL EDUCATION—Prepares instructors in vocational education in agriculture; and for such other positions as agricultural

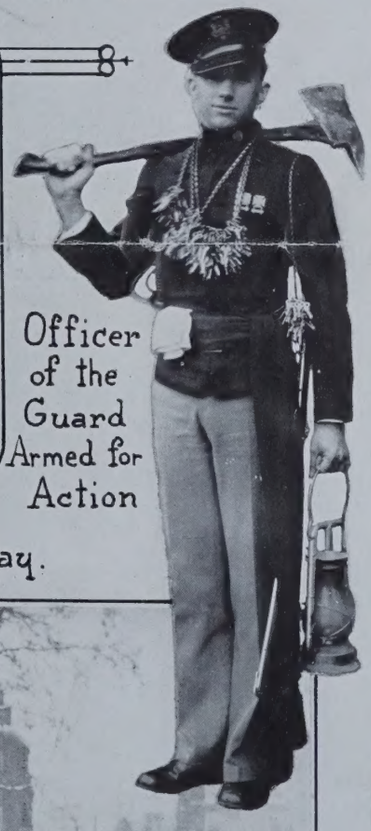
Tech Life



In honor of V.P.I.'s World War dead, November 11.



Officer of the Guard Armed for Action



Colors and Monument — Armistice Day.

Breakfast formation — December.

Activities

There are enough student activities at Virginia Tech to give everyone an opportunity to take some part. Serving as an officer of student government; playing intercollegiate or intramural athletics; taking part in the meetings of the various clubs and organizations; writing for publications; or assisting in the broad program of the Y.M.C.A., afford numerous ways for the individual to develop those qualities of character, judgment, efficiency, understanding of human nature, which are so necessary for successful leadership.

Students at Virginia Tech are governed by officers, a senate, and an honor court. Before the latter are tried cases involving violations of the honor system. The honor system, through years of existence, has come to be one of the most cherished traditions at Virginia Tech. The girls maintain their own student government.

Intercollegiate competition is engaged in by teams representing Virginia Tech in football, basketball, baseball, track, wrestling, boxing, cross country, swimming, and tennis. A rifle team has been formed which shoots matches with other colleges. With the exception of the latter, freshman teams met first year men of other colleges in every sport.

Keen interest in all athletic teams is shown by the students. The annual football game with Virginia Military Institute Thanksgiving Day is the high spot of interest for the cadet corps which attends this game in a body. But students at Virginia Tech do more than attend games for an intramural (on the campus) system enables everyone to take part in contests between companies and classes.

Excellent opportunities for those interested in writing or managing publications are afforded by *The Bugle,* yearbook which pictures campus activities; *The Virginia Tech,* a weekly newspaper which has won many state prizes and a national award for excellence; and *The Virginia Tech Engineer,* a quarterly magazine featuring articles written by students, alumni, and members of the faculty. The Y.M.C.A. pub-

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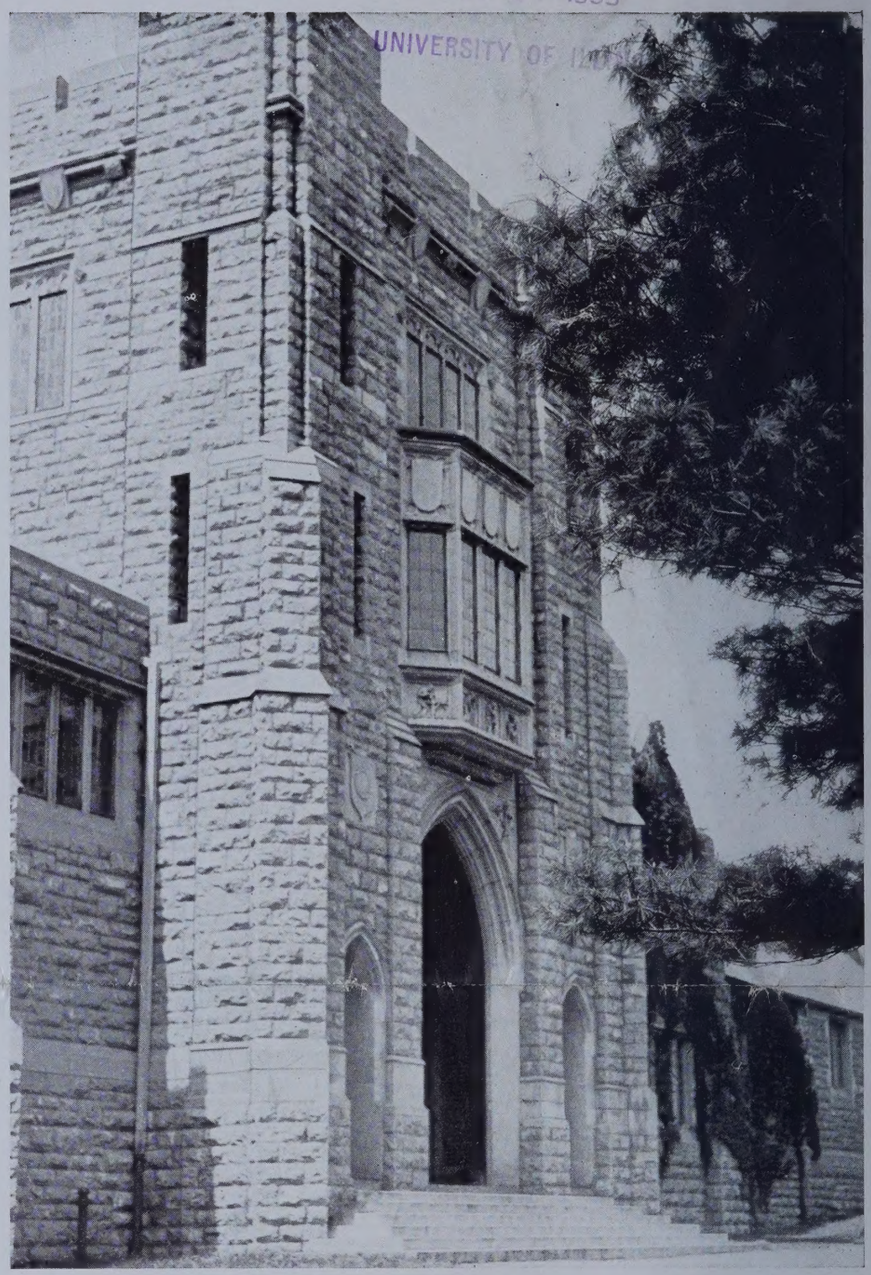
For Entrance

All courses of resident instruction are open to both men and women. The minimum age for attendance is sixteen years. Students may be admitted in either of two ways: by certificate; or by examination.

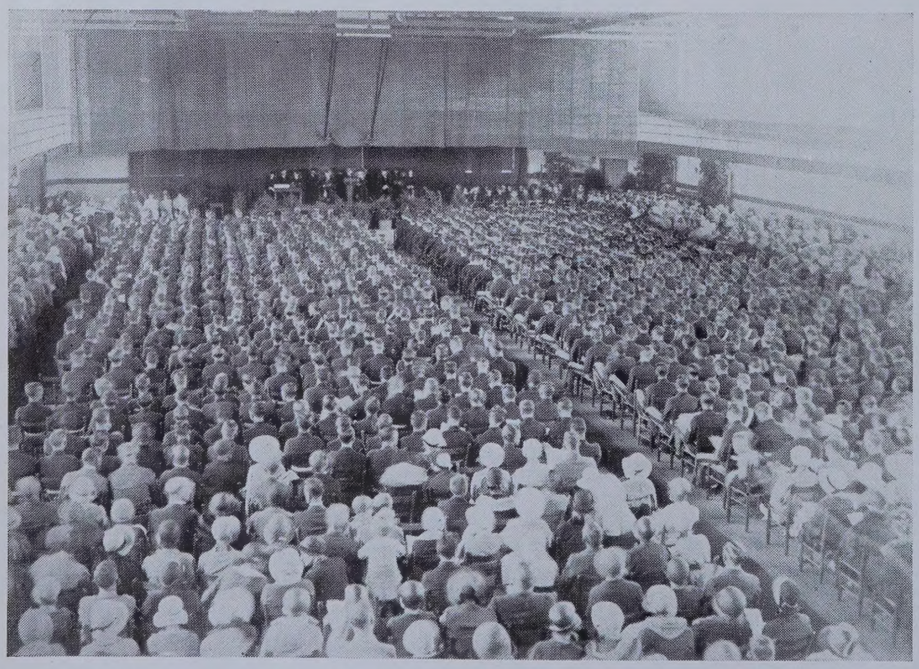
The requirements for admission represent the recognized standard for college entrance. In general the following combination of high school units may be considered excellent preparation for admission to any curriculum: four units in English; two units in algebra; one and one-half units in geometry; one unit in history; one unit in physics; one unit in chemistry; one unit in drawing; and four and one-half units in other topics. Some variation from this distribution, however, will be accepted.

Expenses

Expenses at Virginia Tech are the lowest of any accredited college in the state. The academic year is divided into three quarters from September to June, with a fourth quarter devoted to a two-term summer session. Expenses of the fall, winter, and spring quarters total $346 for all college fees, board, room and laundry for the entire session. The college fees are payable as follows: $40 at the beginning of the fall quarter in September; $30 at the beginning of the winter quarter in January; and $30 at the beginning of the spring quarter in March. The amount for board, room, and laundry is payable as follows: $92 at the beginning of the fall quarter; $77 at the beginning of both the winter and spring quarters. These charges are for Virginia students. For students whose homes are in other states an additional charge of $40 a quarter is made.



McBryde Hall (Engineering Laboratories)

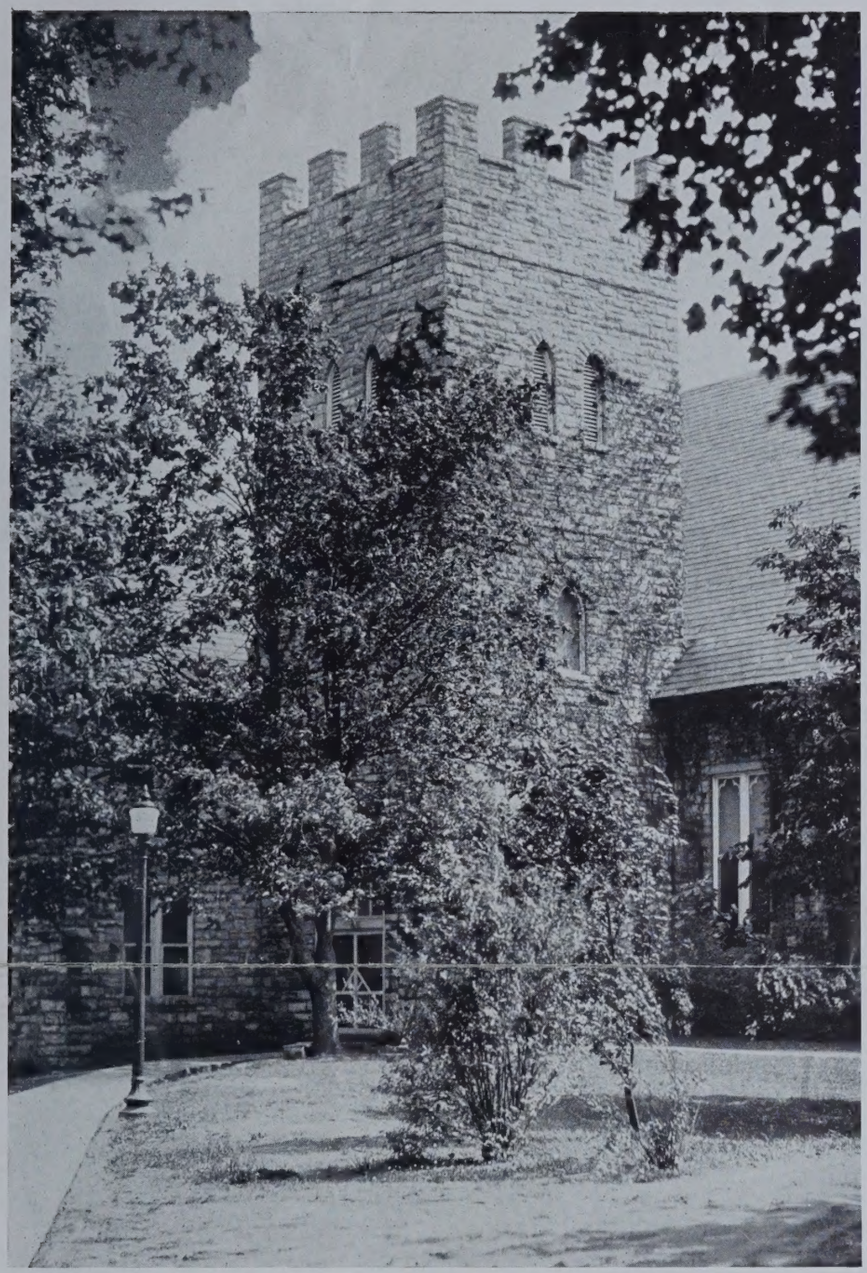


Presenting Diplomas at Virginia Tech Graduation Exericses

Cadets must be supplied with a complete uniform which can be purchased for $100. The cost of the cadet uniform is not great when the cost of corresponding civilian clothing is considered. The federal government repays a portion of the uniform cost and also pays other costs, amounting to a total of about $280 for the four years.

The above amounts are those collected by the college. Books and other supplies, of course, must be purchased. The total which a new cadet should be able to provide at the beginning of the first quarter is about $275, while students not taking military training should be provided with about $175.

More complete details of expenses and a description of scholarships available to reduce the cost may be found in the catalog.



Virginia Tech's Library

demonstration agent, principal of standard rural high school, teacher of science courses, etc.

AGRICULTURAL ENGINEERING—Provides thorough training in engineering principles as applied to agriculture. Soil erosion control, rural electrification, and greater use of machinery on the farm make this curriculum especially timely now.

AGRONOMY—Essentially a general program of study in agriculture, with special reference to farm crops, soils, and fertilizers.

ANIMAL HUSBANDRY—Offers opportunity for specialization in those branches of agriculture which relate to breeding, care, and management of live stock.

DAIRY HUSBANDRY—Offers opportunity for specialization in those branches of agriculture which relate to dairy production and dairy manufacture.

HORTICULTURE—Provides specialization in those branches of agriculture which relate to fruit culture, gardening, and floriculture.

The following engineering curricula are offered:

ARCHITECTURAL ENGINEERING—Planned for those students who are interested in construction work and landscaping.

CERAMIC ENGINEERING—Includes those phases of engineering dealing with silicates and other non-metallics of the earth and their use in the manufacture of such products as brick, hollow tile, sewer pipe, refractories, terra cotta, pottery, tableware, stoneware, glass, enameled metals, cements, limes, plasters, etc.

CHEMICAL ENGINEERING—Prepares students who expect to enter some line of industrial chemistry. The great development of these industries has created a demand for chemists with sufficient engineering training to enable them to direct, maintain, and construct plants for the manufacture of chemical products.

CIVIL ENGINEERING—Provides a thorough knowledge of the underlying principles of civil engineering, and sufficient training in the practical application of the basic sciences to engineering problems to illustrate the principles involved. Graduate work is offered with majors in sanitary engineering, structural engineering, transportation, water power, or municipal administration.

ELECTRICAL ENGINEERING—Teaches the fundamental principles of the use and application of electricity.

GENERAL ENGINEERING—Affords an opportunity for those who may desire a general foundation in engineering to combine with it such other studies as may best suit their particular needs and interests.

INDUSTRIAL ENGINEERING—The developments of recent years in the application of scientific methods to the management of industrial establishments and other engineering enterprises have created a growing demand for men who possess a fundamental training in scientific and engineering principles, combined with a knowledge of the laws, methods and economics of business.

MECHANICAL ENGINEERING—Provides for instruction in the principles of design, construction, and operation of individual machines, as well as of combinations of machines, and other equipment comprising an industrial plant.

METALLURGICAL ENGINEERING—Designed for students who desire to enter the field of metallurgy and metallography. These sciences, dealing with the controlled production, refining, treatment and testing of both iron and steel and the non-ferrous metals and alloys, find important applications not only in connection with mining operations but also in connection with a large variety of industrial processes.

MINING ENGINEERING—Trains for positions connected with mining, such as developing, managing and operating mines, designing and constructing mine plants, determining methods and processes for preparing coal and minerals for market, etc.

MINING GEOLOGY—Offered for students who wish to undertake work connected with geological surveys, mining bureaus, exploration and mining enterprises, etc.

A View of the Reading Room in the Main Library

lishes a handbook containing valuable information about Tech Life. It distributes this volume during freshman week in September to assist new students in becoming acquainted with Tech.

The Y.M.C.A. and its building plays an important part in Tech Life. Interesting meetings are held several times during a month, and important speakers are brought to the campus from time to time.

An important contribution to the social life of the campus is provided by the German and Cotillion Clubs. These dance organizations hold five formal dances during each year, at which time nationally known orchestras play. Informal dances sponsored by various clubs are held from time to time.

Organizations of students from the same section of the state or country, clubs organized by students in the various departments of instruction, and student branches of most of the national engineering societies, hold the interest of many and benefit them in various ways.

Six national honorary fraternities maintain chapters at Virginia Tech. Election to these fraternities is considered a great honor among the students.

PHI KAPPA PHI membership is assigned from the graduating class according to scholarship and personality. Not more than one-eighth of the membership of the graduating class may be elected each year.

ALPHA ZETA elects students in agriculture of good character who have maintained high scholastic standing and have shown unusual qualities of leadership.

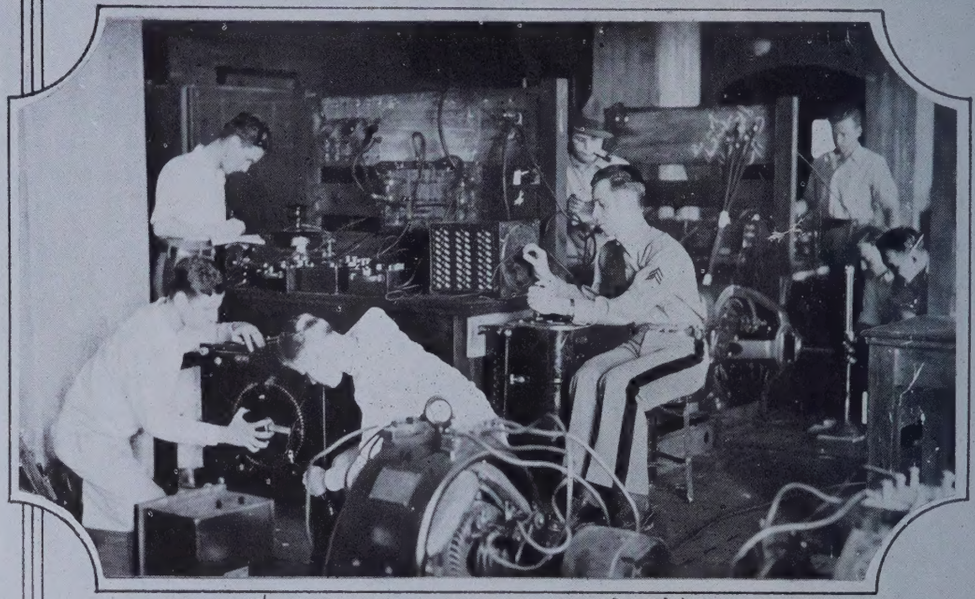
PHI LAMBDA UPSILON elects students who have maintained high scholastic standing, especially in chemical subjects.

TAU BETA PI chooses members from the upper one-fourth of the engineering students, selection being based upon character, personality, leadership, and social qualities.

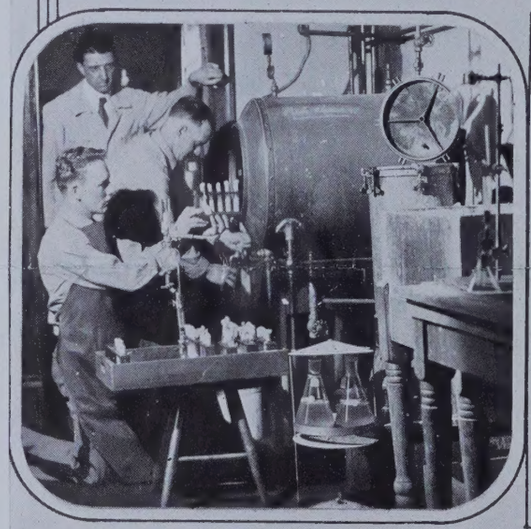
PI DELTA EPSILON selects staff members of the student publications who have shown exceptional ability.

OMICRON DELTA KAPPA elects upperclassmen who have excelled in scholarship, athletics, social leadership, publications, forensic and non-athletic activities.

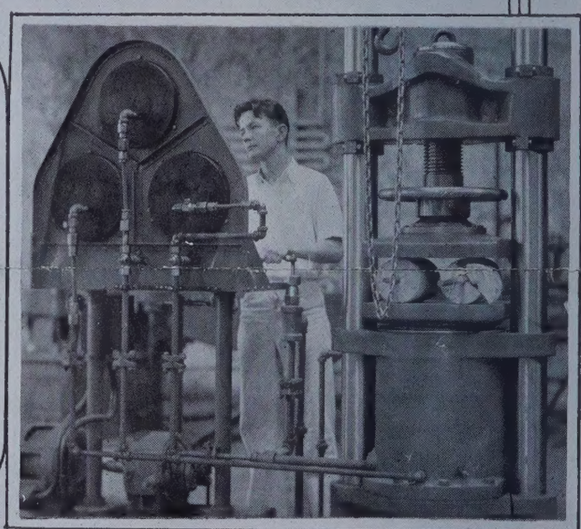
Tech Life



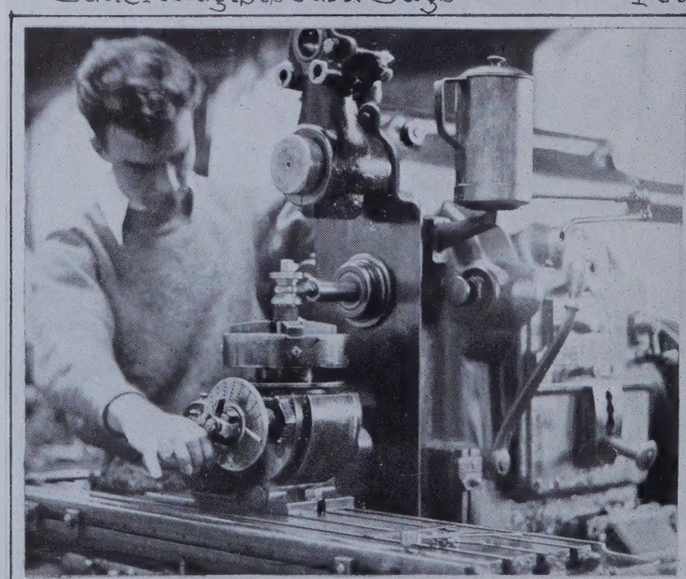
Steinmetz started like this.—



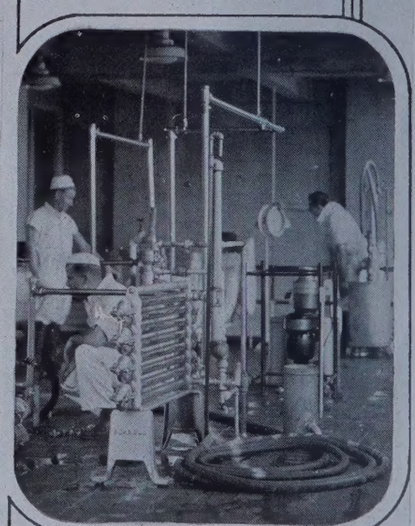
Bacteriologists-burn Bugs



Power under Control?



Chiseling in a big way



Carrying on for Bossy.

World War Memorial Hall (Gymnasium and Swimming Pool)

Presenting Virginia Tech

This bulletin gives you a brief view of Virginia Polytechnic Institute—Virginia Tech, as it is more familiarly known by its students and alumni. Established in 1872 under the provisions of the Morrill Land Grant College Act, Virginia Tech prepares men and women for work in industry, engineering, business, agriculture, and the sciences. It also provides excellent preparation for the study of medicine, dentistry, pharmacy, and the law.

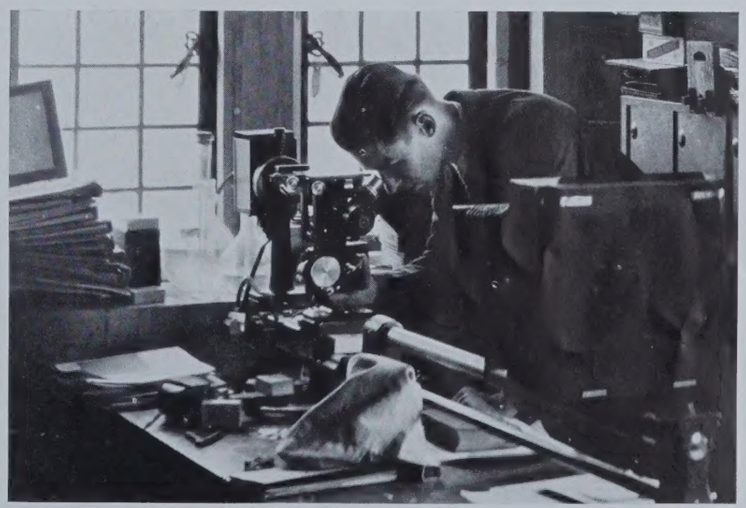
Recent studies have been made showing that a college graduate is better prepared to make the most of his opportunities if he is educated for a definite field of work. Virginia Tech specializes in practically all branches of engineering, practically all branches of agriculture, and in business administration, and the applied sciences.

A college education that teaches merely to *earn* a living is not enough. It must also teach one to *live*.

Competency or ability to serve in agriculture, business, engineering, industry, or the sciences is taught in well organized courses at Virginia Tech by well trained instructors who have devoted years to the study of the subjects they teach. The value of training provided at Virginia Tech is clearly attested through the fine records achieved by her alumni in agriculture, industry, science, public service, the professions, and, in fact, practically every walk of life.

Association with a faculty of fine character and high ideals, living with a group of vigorous young Americans, playing hard and fairly in inter-company and inter-class competitions, participating in student government, getting new ideas and experiences in the work of the Y. M. C. A. and other campus organizations, writing for student publications, learning to give orders by taking orders in the fine cadet corps of which Virginia Tech is justly so proud, attending classes on a campus that for beauty is surpassed by none, are only a few of the many ways that students at Virginia Tech learn to live. They soon learn that campus life is life of the world on a small scale. Cooperating and adjusting themselves with their fellow students teaches them how to get along with others in the bustling-hustling world they will enter on [illegible]ng college.

Pictured on the following pages are a few of the many fine buildings at Virginia Tech. At present a million dollar building program is adding a fine auditorium, class rooms, and dormitories. On the reverse side are three groups from *The 1933 Bugle* showing some high lights of Tech Life. Some of the information you need to know about Virginia Tech also is included. But only a visit to the campus will give you a real view of the institution. Good roads lead to Blacksburg. You are welcome at any time.



Metalloscope in Metallography Laboratory Magnifying 6000 Diameters

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